Committee on Resources

Subcommittee on Fisheries Conservation, Wildlife and Oceans

Witness Statement

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Introduction

My name is Dr. Robert Hueter and I am a senior scientist at Mote Marine Laboratory, an independent, nonprofit research and education institution in Sarasota, Florida. I am director of the Laboratory's Center for Shark Research, a national research center established by the Congress in 1991, which today comprises the world's largest center for basic and applied studies of sharks and their relatives, the skates and rays. Our ten doctoral-level scientists and their staff work on everything about sharks from molecules to whole populations, from biomedical studies to fisheries science. We have worked closely with NOAA/NMFS over the past eight years to provide much of the information they require for understanding the status of sharks as a marine resource.

My personal experience with shark fisheries spans over 25 years. I began my sea experience with shark fishery methods in the mid-1970's, when I worked as a chief scientist aboard a longlining boat that tagged and released thousands of blue sharks in the northwestern Atlantic Ocean. Since then, I have worked on sharks in the Atlantic, Gulf of Mexico, Caribbean and the Mexican Pacific. In addition to conducting scientific research, I currently serve as a member of the NMFS Advisory Panel on highly migratory species (sharks, tuna, swordfish), the shark scientific committee of the Gulf of Mexico Fishery Management Council, and the Shark Specialist Group of the United Nations' International Union for the Conservation of Nature (IUCN).

I also am Past-President of the American Elasmobranch Society (AES)-"elasmobranchs" is the awkward scientific term for the sharks, skates and rays-which is a society of over 300 scientists, students, aquarists, educators, and other professionals actively working on the biology and conservation of these animals. As a member of this society's international Conservation Committee, I am representing both myself as a professional shark biologist and marine scientist, and the shark conservation interests of the AES in this particular matter.

I wish to thank the members and staff of the House Subcommittee on Fisheries Conservation, Wildlife and Oceans for the opportunity to testify on the issue of shark finning in U.S. waters. I first became aware of this practice eleven years ago in the summer of 1988, when I received word of a Florida commercial fishing operation that was harpooning bottlenosed dolphins, using the dead dolphins as bait to catch sharks, and then cutting the fins off the sharks and dumping their bodies at sea. As another fisherman put it at the time, "One guy like that undoes what 100 conservation-minded commercial fishermen do." The shark fishermen were arrested and convicted of their crime-not the shark finning, which at that time was not illegal anywhere, but the killing of dolphins, which had been outlawed since 1972 by the Marine Mammal Protection Act.

This incredible incident led to the realization that shark fins were worth serious money, enough to motivate a few rogue fishermen to behave in what most people would consider a most unethical, as well as illegal, way. Shark finning quickly became a widespread practice in the late 1980's as the price of fins skyrocketed, and a new chapter in commercial shark fishing had begun. As the public learned of the practice of finning, an unprecedented movement in shark conservation also began.

Sharks as a Marine Resource

Why should we care about sharks? Most shark species are what scientists call "top predators," which means sharks are typically at the top of marine food webs. This ecological role in the oceans is very important, similar to that of the big predators on the land. As top predators, sharks affect all the levels below them, and there are few other species that can take their place if sharks are removed.

People have feared and despised sharks because they are predators and have attacked and killed humans. But today we understand how seldom this occurs-about 70-100 confirmed shark bites on people each year, resulting in about 5-15 deaths worldwide. Considering the number of human swimmers, surfers, and divers venturing into the world's oceans, it's clear that sharks are not that interested in us. On the other hand, we are catching and removing over100 *million* sharks every year through fishing activities, according to estimates of the Food and Agricultural Organization of the United Nations.

The fact that so many sharks are being caught underscores their rising value in marine fisheries. To many peoples of the world, sharks represent an important source of food. Their livers and other organs provide pharmaceutical and industrial products, their skins are used to make high-quality leather, and, yes, the fins are prized in Asian cultures as the key ingredient in sharkfin soup, a delicacy. Sharks have become a valuable marine resource, and it is the responsibility of all fishing nations to ensure that this resource be utilized in a nonwasteful, sustainable manner.

And that's the main challenge for shark fisheries: long-term sustainability. The history of intensive fisheries for sharks around the world almost always has been boom-and-bust. Rapid build-up and capitalization of fishing activities focused on sharks is quickly followed by overfishing, stock depletion, and collapse of the fishery. This theme may sound familiar for many of America's fisheries, but for sharks it is nearly unavoidable, because of the severe biological limitations of these particular animals to replenish themselves.

Unlike most of our other fish resources, sharks are relatively low in numbers, grow very slowly, and reproduce at very low rates. Sharks do not spawn thousands or millions of eggs like their bony fish cousins. When they reach adulthood-which may take a dozen years or more in some species-sharks mate just like mammals, and the females get pregnant and carry their growing young inside them. In the more advanced

sharks, like blue sharks, the growing pups actually form a placental connection with the mother. After a pregnancy that lasts from nine months to a year, the mother shark gives birth to her fully developed pups.

So in many ways, sharks reproduce more like ourselves than the other fishes. And unlike other fishes, sharks cannot produce lots of young quickly to replenish an area depleted by overfishing. When sharks are overfished, the stocks can remain in a depleted state for *decades* after fishing has ceased, simply because it takes that long for these animals to grow and produce a new generation.

Sometimes, shark stocks do not appear to recover at all.

The Blue Shark

There are about 400 different species of sharks in the world's seas, and the blue shark is one of the more common large sharks found in the open ocean. It is a handsome, graceful animal with a remarkable blue color. Each year, adult blue sharks undertake transoceanic migrations of thousands of miles, using navigational abilities that we don't completely understand. It is true that blue sharks are relatively more prolific than other shark species, giving birth to litters of about 25-30 pups on average rather than the more typical half-dozen pups or so for most other sharks. Although not yet validated, scientific evidence suggests that blue sharks may grow faster than some of the other large sharks, reaching maturity in five to seven years.

But it is *not* true that this makes it difficult to deplete them. In all likelihood, survival of the small blue shark pups in the open ocean where they are born is low-lower than in the more protected, inshore nursery areas that other sharks use-and so fewer of the young blue sharks probably make it to reproductive age. And scientific evidence from catch records shows that blue shark populations can be depleted by fishing activities. Data we have been analyzing at Mote Marine Laboratory indicate that between the 1980's and 1990's, the relative abundance of blue sharks in U.S. waters of the northwestern Atlantic declined by 64%. This is preliminary evidence (not yet published but being submitted to a major shark conference next February) that about *two-thirds* of the blue sharks in federal waters off New England and the mid-Atlantic states were removed during this period. The likely conclusion will be that this depletion was a result of fishing mortality-not from directed shark fishing, which did not target blue sharks in this area, but from bycatch mortality. For in the northwestern Atlantic, blue sharks are caught commonly as bycatch in swordfish and tuna longline fisheries, just as they are in the western Pacific.

The status of the blue shark population in the waters around Hawaii is not well known, and it is my understanding that a comprehensive stock assessment of these animals is underway. Until the results of that stock assessment are completed, it would be risky to proceed with a policy that promotes increased fishing mortality of blue sharks in U.S. waters. If this stock is not already overfished, this may be one case in American fisheries where we can be successful in attaining National Standard 1, the ultimate goal of the Magnuson-Stevens Act: to *prevent* overfishing, rather than try to recoup our losses after it already has occurred.

Finning

The cutting off of a shark's fins results in a dead shark. Sharks cannot swim, or survive for very long, without their fins. If a shark is not dead when it is brought to the boat, it soon will be dead if its fins are sliced off and the rest of the animal is thrown back into the sea. The public has responded to this practice with revulsion, likening it to the killing of rhinoceroses just for their horns. From a fisheries management

standpoint, the key issue is the harvesting-and thus the removal from the stock-of an entire shark, usually an adult of reproductive age, just for its fins.

My position, and the position of the American Elasmobranch Society, is that finning of sharks is a wasteful practice that does not utilize our shark resources wisely. Attached to this testimony is an August 1999 letter from current AES President Dr. Carl Luer addressed to the Western Pacific Fishery Management Council, together with a resolution unanimously endorsed by the AES membership in June, stating unequivocally the position of this society with regard to this issue.

Why is shark finning such a bad idea? I can list the following arguments against the use of this practice in commercial fisheries:

> ***Finning of blue sharks promotes the extirpation of a stock about which we have very little information.*** **For the biological reasons mentioned above, this is an extremely risky approach, and it is misguided to proceed on the assumption that blue sharks are immune to overfishing. Until a proper stock assessment is completed, allowing the take of blue sharks, especially for a wasteful practice, is a myopic policy. History has taught us that we must proceed cautiously with shark fisheries because of their lack of resilience to the effects of overfishing.** ***Shark finning is exceedingly wasteful in that the fins comprise less than five percent of the flesh of the animal.*** **The meat, skin, organs, and other body parts are all thrown away. In blue sharks, the fins are not even of top quality for sharkfin soup, but the sheer number of them being caught makes the fins tempting to keep and sell at a lower price than "grade A" shark fins. So over 95% of this natural resource is thrown away for the sake of a lower quality product.**
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> ***Finning encourages bycatch mortality in commercial fisheries.*** **Finned or not, sharks are a bycatch of swordfish and tuna longline fisheries. The fishermen presumably are not trying to catch sharks. Allowing them to keep the shark fins may appear on the surface as utilizing the catch more fully, but what this does is remove the motivation to avoid bycatch. Most importantly, there seems to be no dispute that the overwhelming majority of blue sharks caught in the Hawaii longline fishery are still alive when brought to the boat, before they are hauled onboard and finned. These are animals that would have had a good chance of survival after release if they were not finned, because blue sharks have a relatively higher survival rate on pelagic longlines than many other shark species.** ***It is inconsistent to outlaw shark finning in the Atlantic on fundamental grounds and yet allow it to continue in the Pacific.*** **Finning has been illegal in U.S. waters of the Atlantic, Gulf of Mexico, and Caribbean Sea ever since NMFS implemented the first federal fishery management plan for sharks in 1993. Of all the measures that NMFS has adopted for the east coast shark fishery, finning has been the *least* controversial. I have never heard a commercial shark fisherman working off the east coast argue for the allowance of finning.**

Until the wastefulness of finning is overcome with better understanding and utilization of shark stocks, this practice provides the wrong economic incentives to our commercial fisheries in the challenge to reduce bycatch mortality, produce sustainable yields, and use our limited marine resources with maximum efficiency.

Recommendations to the Congress

We recommend that the Congress take the following measures:

Pass House Continuing Resolution 189 to communicate the sense of the Congress and the American people that the practice of shark finning should be eliminated. Take steps as necessary to abolish the practice of shark finning in all U.S. waters immediately. Encourage commercial as well as recreational fisheries to develop practices that treat sharks as a viable, valuable natural resource, by developing responsible, conservative approaches to directed shark fishing and reducing the bycatch mortality of sharks. Recommend that NOAA/NMFS and other agencies establish and continue research programs designed to understand better the status of shark fishery resources. Promote the U.S. role in international efforts to conserve and manage shark stocks worldwide

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AMERICAN ELASMOBRANCH SOCIETY RESOLUTION

ON FINNING OF SHARKS IN THE U.S. WESTERN PACIFIC

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Whereas, finning is the practice of removing the fins from a shark and throwing the rest of the shark back into the water;

Whereas, tens of thousands of blue sharks are subject to finning each year in the US Pacific;

Whereas, pelagic sharks are not subject to effective management in the Western Pacific Management Council region;

Whereas, the National Marine Fisheries Service has stated that finning of sharks is wasteful and contrary to US fisheries policy;

Whereas, a finning ban would be consistent with other State, Federal and international fishing policies;

Whereas, the Western Pacific Fishery Management Council and the State of Hawaii recently failed to take action to end or to control finning, despite widespread concern from fishermen, the public, scientists, conservationists, and the National Marine Fisheries Service;

Therefore, be it resolved that the American Elasmobranch Society urges the Western Pacific Fishery Management Council, the State of Hawaii, and the National Marine Fisheries Service to immediately end the practice of finning in US Western Pacific waters.

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